REMARKS

This Application has been carefully reviewed in light of the Office Action mailed on April 1, 2005. Claims 1-22 are pending in the Application. Claims 1-22 were rejected in this Office Action. Claims 1-7 and 9-22 have been amended. Applicants respectfully request reconsideration and favorable action in this case.

Rejections Under § 112

Claims 1-14 and 17 have been rejected as being indefinite. Applicants have amended Claims 1 and 17 to address these rejections. Favorable action is requested.

Rejections Under § 103(a)

Claims 1-2, 5-10, and 13 have been rejected under 35 U.S.C. 103(a) over U.S. Patent No. 6,088,368 to Rubinstain et al. ("*Rubinstain*"). Claims 3-4, 11-12, and 14-22 have been rejected under 35 U.S.C. 103(a) over *Rubinstain* in view of U.S. Patent No. 6,775,355 to Bingel et al. ("*Bingel*"). Applicants respectfully traverse.

Claim 1

Applicants' independent Claim 1 recites a system comprising a "data switch comprising software embodied in a computer readable media and operable to: communicate with the one or more CPE devices using a first predetermined power spectral density (PSD); and communicate with the one or more CPE devices using a second predetermined PSD." (Claim 1, lines 5-9). The Office Action relies on *Rubinstain* (column 7, lines 38-42; column 8, lines 15-12) to teach this limitation, but that reliance is misplaced. The language relied upon in *Rubinstain* merely discloses the ability to alter latency through software and the general connections between the switch, LAN, and the PBX:

> The system supports two latency modes that can be modified by software or through the network management: with an interleaver resulting in a latency of less than 100 msec; whichout an interleaver resulting in a latency of less than 1.5 msec. . .
>
> This figure shows a central office 12 coupled to a private branch exchange (PBX) 14 and a LAN/WAN 16. The connection between the central office and the PBX carries voice traffic and the connection between the central office and the switch within the LAN/WAN carries data traffic. Both the PBX and LAN/WAN are located on the customer premises.

(column 7, lines 38-42; column 8, lines 15-12). This passge of *Rubinstain* does not discuss PSDs.

Furthermore, nowhere does *Rubinstain* teach a data switch operable to communicate with CPEs using multiple PSDs. *Rubinstain*, in fact, teaches communicating using only a single PSD. The switch used by *Rubinstain* is isolated from those signals and is not operable to communicate with CPEs at multiple PSDs. The 10BaseS + POTS signal cited in the Office Action is separated into its voice and data components before reaching the switch, which communicates with all of the 10BaseS modems at a uniform PSD. (see *Rubinstain* Fig. 2; column 7, lines 20-26).

The *Rubinstain* table (column 11, lines 5-1) cited in the Office Action as evidence of support for multiple PSDs refers to the bitrates and bandwidths supported by the *Rubinstain* system. The patent fails to teach, however, communicating with multiple CPEs at different PSDs, which is recited by Claim 1 of the Applicants' invention. According to one particular non-limiting embodiment of Claim 1 a data switch is operable to support use of a first and second PSD in a network, including ones not supported by public standards, thus permitting communication with "a higher bit rate or greater reliability than PSDs that comply with ANSI or

ETSI standards." The *Rubinstain* system, however, was designed specifically to comply with

public standards. The *Rubinstain* reference discloses the following:

> The transmitted power output by the system onto the twisted pair
> wire is preferably limited to 10 dBm (10mW) in each direction.
> This power limit is widely incorporated into existing standards
> such as ANSI and ETSI. The transmit power is limited in order to
> limit the power spectral density (PSD) on the wire. The
> downstream power is thus fixed but the power transmitted on the
> upstream direction is controlled by the downstream link in
> accordance with the length of the wire so as to maintain the
> received power in the upstream direction at a constant level.
> (column 11, lines 19-28).

Rubinstain thus explicitly limits itself to a single PSD limited to 10 dBm in each direction

that comply with existing standards such as ANSI and ETSI. It therefore does not teach

communicating with multiple CPEs at different PSDs. For at least this reason, Claim 1

should be allowed, as should Claims 2-14 which depend therefrom. Claim 22 should be

allowed for analogous reasons. Favorable action is requested.

Claim 15

Claim 15 recites a "method for establishing a desired mode link between a

data switch and a customer premises equipment (CPE) device, comprising: establishing a

high probability mode link between the data switch and the CPE device; determining a

desired mode of communication between the data switch and the CPE device." The

Office Action finds the method obvious over *Rubinstain* in light of *Bingel*, asserting that

each claim limitation can be found by combining the references. Applicants respectfully

traverse.

The Office Action relies on *Rubinstain* (column 11 lines 5-18) for teaching "establishing a high-probability mode link between the switch and the CPE device." This passage from *Rubinstain* states:

Rate	Channel Direction	Bandwidth
Full	Downstream	1.95 MHz
Full	Upstream	3.9 MHz
Half	Downstream	0.975 MHz
Half	Upstream	1.95 MHz

> The upstream channel uses CAP/QAM-16 with less bits per symbol than the modulation used for the downstream channel due to the attenuation of the telephone line at higher frequencies. The upstream channel band is placed at a higher frequency than the downstream channel. Thus, the bandwidth of the upstream channel is necessarily higher in order to achieve the same data rate.

The Office Action equates the above disclosure with the claimed step of "establishing a high-probability mode link between the switch and the CPE device." (Claim 15). This is incorrect. *Rubinstain* fails to disclose that the initial mode is chosen to be a "high-probability link." Such language or purpose is wholly absent from the lines referenced in the Office Action, which simply describes the two bitrates supported by the *Rubinstain* system. (column 10, lines 50-54 and 60-63; column 11 lines 5-18). *Rubinstain* does not teach whether any of the bandwidths disclosed are high-probability with respect to establishing a mode link, as is recited by Claim 25 of Applicants' invention. For at least this reason, Claim 15 should be allowed, as should Claims 16-21 which depend therefrom.
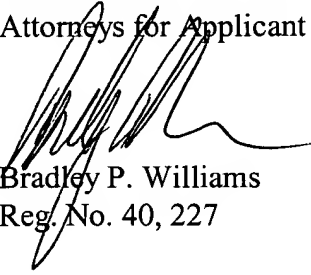
CONCLUSION

Applicants have now made an earnest attempt to place this case in condition for immediate allowance. For the foregoing reasons and for other apparent reasons, Applicants respectfully request full allowance of all pending Claims.

If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, please feel free to contact the undersigned attorney for Applicants.

Applicants do not believe that any fees are due. However, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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